# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/635,739 | 08/05/2003 | Toshimichi Kishimoto | 16869P-085500US | 8839 |

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| EXAMINER |
|---|
| PATEL, NIKETA I |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2182 | |

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

|  | Application No. | Applicant(s) |
|---|---|---|
| Office Action Summary | 10/635,739 | KISHIMOTO ET AL. |
|  | Examiner | Art Unit |  |
|  | Niketa I. Patel | 2182 |  |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on _20 January 2005_.

2a)☐ This action is **FINAL**.    2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) _1-6_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-6_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _15 March 2004_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All  b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _1/10/2005_.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.      Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsunami et

al. U.S. Patent Application Publication Number: 2003/0023665 A1 (hereinafter *"Matsunami"*)

and further in view of Ylonen et al. U.S. Application Publication Number: 2004/0250072 A1

(hereinafter *"Ylonen"*.)

3.      **Referring to claims 1 and 4,** *Matsunami* teaches a storage device and a method to

receive demands for writing and reading data from host devices to control writing and reading of

data from storage media [see paragraph 0017], the storage device comprising: a service processor

[see figure 1, element 5] configured to set configuration information of the storage device [see

paragraphs 0036 and 0056], and a terminal device [see figure 1, element 12] connected to the

service processor via a private line [see figure 1, element 13] to send a command group [see

paragraphs 0036, 0056, 0093-0094], which is received from an operator and related to the

configuration information of the storage device, to the service processor [see paragraphs 0036

and 0056], *Matsunami* does not set forth the limitation of wherein the service processor

determines approval or denial of execution of the command group prior to execution of the

command group received from the terminal device, however *Ylonen* teaches this limitation [see

*Ylonen* paragraph 0045] in order to improve the system security by making sure that the

configuration data has not been modified by some intermediary device.

One of ordinary skill in the art at the time of applicant's invention would have clearly

recognized that it is quite advantageous for the system of *Matsunami* to have means to

encrypt/decrypt configuration data in order to maintain data integrity by making sure that some

intermediary device has not modified the configuration data. It is for this reason that one of

ordinary skill in the art would have been motivated to implement *Matsunami's* system with data

encryption/decryption means in order to improve the system security by making sure that the

configuration data has not been modified by some intermediary device.

4.      **Referring to claims 2, 3, 5**, teachings of *Matsunami* as modified by the teachings of

*Ylonen* teaches wherein the terminal device sends encryption command information, which is

given by encrypting the command group with a secret key, together with the command group

when the command group is sent, and the service processor decrypts the received encryption

command information to determine whether a command group obtained by the decryption

corresponds to the received command group, and executes the command group in the case of

correspondency [see *Ylonen* paragraphs 0042-0045]; wherein the command group is subjected to

a digest processing to be encrypted to provide the encryption command information, and the

service processor determines whether information subjected to the digest processing with the use

of the command group received from the terminal device corresponds to information, which is

obtained by decryption of the received encryption command information and subjected to the

digest processing, and executes the command group in the case of correspondency [see *Ylonen*

paragraphs 0042-0045.]

5.    **Referring to claim 6**, *Matsunami* teaches a method of setting configuration information

of a storage device comprising a service processor for setting of configuration information of the

storage device, and a terminal device connected to the service processor to give and take

information from the service processor [see *Matsunami* paragraphs 0036, 0056, 0093-0094.]

*Matsunami* is silent regarding the below limitations however *Ylonen* teaches the method

comprising: determining by a storage management terminal validity of a command group

described on a script sheet, creating a digest of the command group when the command group is

determined to be valid using a secret key to encrypt the digest created sending by the terminal

device sends to the service processor a digest data of the digest encrypted using the secret key

and the command group described on the script sheet [see *Ylonen* paragraphs 0042-0045],

creating a digest from the command group received by the service processor decrypting the

encrypted digest data received by the service processor to compare the same decrypted digest

data with a digest data of the digest created from the command group received by the service

processor [see *Ylonen* paragraphs 0042-0045] and executing the command group described on

the received script sheet to set a structure of the storage device in the case where results of

comparison between the decrypt digest data and the digest data of the digest created from the

command group indicates correspondency [see *Ylonen* paragraphs 0042-0045.]

One of ordinary skill in the art at the time of applicant's invention would have clearly

recognized that it is quite advantageous for the system of *Matsunami* to have means to

encrypt/decrypt configuration data in order to maintain data integrity by making sure that some

intermediary device has not modified the configuration data. It is for this reason that one of

ordinary skill in the art would have been motivated to implement *Matsunami's* system with data

encryption/decryption means in order to improve the system security by making sure that the

configuration data has not been modified by some intermediary device.


## *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following documents have been made record of to further show the state of the art as it

pertains to configuring storage device and encryption/decryption of the configuration data:

Yagishita U.S. Pat. App. Pub. No.: 2003/0135439 A1

Jovanovich et al. U.S. Pat. No.: 5,940,509

Porterfield U.S. Pat. No.: 6,910,093

Sullivan U.S. Pat. App. Pub. No.: 2003/0212768 A1

Gibble et al. U.S. Pat. App. Pub. No.: 2004/0044830 A1

Ophir et al. U.S. Pat. App. Pub. No.: 2004/0143733 A1

Cromer et al. U.S. Pat. App. Pub. No.: 2001/0027521 A1

Burnett et al. U.S. Pat. App. Pub. No.: 2003/0018889 A1

O'Neill U.S. Pat. App. Pub. No.: 2003/0115461 A1

Shiga U.S. Pat. App. Pub. No.: 2003/0065902 A1

Hindawi et al. U.S. Pat. App. Pub. 2005/0198039 A1

Nakamura et al. U.S. Pat. App. Pub. 2003/0061331 A1

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Niketa I. Patel whose telephone number is (571) 272 4156. The examiner can normally be reached on M-F 8:00 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (571) 272 4083. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NP
09/23/2005

TAMMARA PEYTON
PRIMARY EXAMINER